

IN THE CLAIMS:

Please amend the following claims as indicated:

Claim 1 (Amended) A liquid crystal shutter comprising:

a liquid crystal device including a nematic liquid crystal sealed in between a first transparent substrate and a second transparent substrate on whose inner surfaces are formed respective transparent electrodes, said liquid crystal device having a twisted angle of 190° to 260° [equal to or greater than 180°]; and

a pair of polarizing plates between which are sandwiched said first transparent substrate and said second transparent substrate, said polarizing plates having respective absorption axes which are [substantially] orthogonal to each other, said absorption axes of said polarizing plates being angled within a range of $\pm 40^\circ$ to $\pm 50^\circ$ relative to a direction in which intermediate liquid crystal molecules are orientated, said direction indicating a direction of orientation of said liquid crystal in an intermediate portion in a direction of thickness of said liquid crystal device;

wherein said liquid crystal device is driven by applying DC or AC voltage of 10 to 20V, and birefringence of said liquid crystal device is nullified when said voltage is applied to said liquid crystal device.

Claim 2 (Amended) A liquid crystal shutter comprising:

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a liquid crystal device including a nematic liquid crystal sealed in between a first transparent substrate and a second transparent substrate on whose inner surfaces are formed respective transparent electrodes, said liquid crystal device having a twisted angle of 190° and 260° [equal to or greater than 180°]; and

a pair of polarizing plates between which are sandwiched said first transparent substrate and said second transparent substrate, said polarizing plates having respective absorption axes which are [substantially] orthogonal to each other;

$\Delta n d$ lies within a range of 600 to 900 nm, said $\Delta n d$ being the product of a birefringence Δn of said nematic liquid crystal and a gap d between said first transparent substrate and said second transparent substrate and,

further wherein said liquid crystal device is driven by applying DC or AC voltage of 10 to 20V, and birefringence of said liquid crystal device is nullified when said voltage is applied to said liquid crystal device.

REMARKS

Claims 1 and 2 have been amended in order to more particularly point out and distinctly claim the Applicants' invention. Thus, claims 1-3 remain for consideration in this application.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Amstutz (U.S. Patent No. 4,634,229).